414 Rec'd PCT/PTO 13 NOV 2000

FORM PTO-1390 (REV 5-93) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NO. 00Z71.00011

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

U.S. APPLICATION NO. (If known, see 37 CFR 1.5) TBA 09/700184

INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/NL99/00266	4 May 1999	11 May 1998

TITLE OF INVENTION
FLEXIBLE LAMINATE AND METHOD OF MANUFACTURING SAME

APPLICANT(S) FOR DO/EO/US
Max Gregor PAPING

OIPE NOV 13 2000 PATENT & TRADEMARK OFFICE

Applicant herewith submits to the United State Designated/Elected Office (DO/EO/US) the following items and other information:

1. ■ This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.
3. ■ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ■ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ■ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
   a. ☐ is transmitted herewith (required on if not transmitted by the International Bureau).
   b. ■ has been transmitted by the International Bureau. A copy of Form PCT/IB/308 is attached.
   c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ■ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ■ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
   a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
   b. ☐ have been transmitted by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   d. ■ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11-16 below concern other document(s) or information included:

11. ■ An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98.
12. ☐ An Assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included.
13. ■ A FIRST preliminary amendment.
    ☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ■ A Substitute Application.
15. ☐ A change of power of attorney and/or address letter.
16. ■ Other items or information:

    International Search Report (ISA/EPO)
    Amended Application

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)	INTERNATIONAL APPLICATION NO.	ATTORNEY'S DOCKET NO.
TBA 09/700184	PCT/NL99/00266	00771.00011

17. ■ The following fees are submitted:	CALCULATIONS	PTO USE ONLY
Basic National Fee (37 CFR 1.492(a)(1)-(5):		
Search Report has been prepared by the EPO or JPO $860.00		
International preliminary examination fee paid to USPTO (37 CFR 1.482) $690.00		
No International preliminary examination fee paid to USPTO (37 CFR 1.482), but international search fee paid to USPTO (37 CFR 1.445(a)(2)) $710.00		
Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO $1,000.00		
International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) $100.00		
ENTER APPROPRIATE BASIC FEE AMOUNT =	$860.00	
Surcharge of $130.00 for furnishing the oath or declaration later than 20 or 30 months from the earliest claimed priority date (37 CFR 1.492(e).	$0.00	

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total Claims	18 -20 =	0	X $ 18.00	$0.00	
Independent Claims	2 - 3 =	0	X $ 78.00	$0.00	
Multiple dependent claims (if applicable)			X $260.00	$0.00	
TOTAL OF ABOVE CALCULATIONS =				$860.00	
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also be filed (note 37 CFR 1.9, 1.27, 1.28).				$0.00	
SUBTOTAL =				$860.00	
Processing fee of $130.00 for furnishing the English translation later than 20 or 30 months from the earliest claimed priority date (37 CFR 1.492(f).				$0.00	
TOTAL NATIONAL FEE =				$860.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). $40.00 per property.				$0.00	
TOTAL FEES ENCLOSED =				$860.00	
				Amount to be: refunded	$
				charged	$

a. ☐ A check in the amount of $_____ to cover the above fees is enclosed.

b. ■ Please charge $860.00 for the application filing fee to our Deposit Account No. 19-0733. However, if the calculated fee is not correct, you are authorized to charge any additional fee or credit any overpayment to our Deposit Account No. 19-0733. A duplicate copy of this sheet is enclosed.

c. ■ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 19-0733. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

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SIGNATURE

Franklin D. Wolffe
Registration No. 19,724

Date: November 13, 2000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Max Gregor PAPING

Atty. Docket: 00771.00011

Serial No.: TBA

U.S. National Stage
International Application No.:
PCT/NL99/00266

Filed: Herewith (November 13, 2000)

For: FLEXIBLE LAMINATE AND METHOD OF MANUFACTURING SAME

PRELIMINARY AMENDMENT

Assistant Commissioner of Patents
Washington, D. C. 20231

BOX PCT

Sir:

Prior to calculation of claim fees and examination, please amend the instant application.

IN THE SPECIFICATION, CLAIMS AND ABSTRACT:

Please amend the entire application as shown in the annexed "Amended Application." A clean "Substitute Application" is also annexed with all of the amendments incorporated therein.

REMARKS

Due to Applicant's substantial amendments to the specification, claims and abstract, Applicant submits herewith a Substitute Application to replace the Original Application. To clearly show that no new matter has been added, Applicant has annexed hereto an Amended Application which clearly denotes all of the modifications made to form the Substitute Application.

Applicant has made amendments to many of the claims. Each claim is labeled as "(Original)" where no amendments were made; "(Amended)" where amendments have been made; and "(New)" where the claim is newly added.

Examination on the merits of the instant application is respectfully requested.

Respectfully submitted,

Date: November 13, 2000

Franklin D. Wolffe
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Annexes: (1) Amended Application
(2) Substitute Application

FDW:lab

FLEXIBLE LAMINATE AND METHOD OF MANUFACTURING SAME

BACKGROUND OF THE INVENTION

In the case of, for instance, engine trouble in a car, traffic safety requires the placing of a so-called warning triangle at a distance behind this car. Such warning triangles are mechanical structures which are carried folded up in the car and which must be placed vertically on the road with a special collapsible foot. Such warning triangles are heavy and, with a view to practical handling, take a relatively small form, whereby their optical effect is limited, even in the case of substantial reflective properties.

Seen as a further drawback of known warning triangles is that once the engine trouble has been repaired the warning triangle is often left behind, so that a new one has to be purchased.

In addition, structures placed freely on a foot are subject to wind influences. It often occurs that a warning triangle cannot be placed stably due to strong wind.

BRIEF DESCRIPTION OF THE INVENTION

The invention has the general object of providing solutions to the stated problems.

The invention further has the general object of providing products which can be used for the most diverse applications, and not only as warning triangles, and which are not subject to any of the said problems described above with reference to warning triangles.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be further described, by way of examples, with reference to the accompanying drawings, wherein:

Fig. 1 is a perspective view of a triangular warning device showing the three layer construction; and

Fig. 2 is a side view of the alternative two layer construction, also showing two additional structural modifications.

DETAILED DESCRIPTION OF THE INVENTION

In respect of the above, and as shown in Fig. 1, the invention provides a flexible laminate, generally designated 1, comprising:

a first layer 10 serving as carrier layer;

a light-active second layer 11 situated on an outer surface of this laminate; and

a permanent magnetic third layer 12 for releasable magnetic attachment of the laminate to a ferromagnetic surface.

Such a laminate is known from US-A-5 005 306.

The optical properties of the light-active layer as according to this American patent specification have to be activated by external electrical energizing. This limits easy use of this laminate.

With this in mind, the laminate according to the invention has the feature that the light-active second layer acts without external energizing to change the properties of incident light such that the light reflected by this layer has signaling properties.

Such a laminate according to the invention can easily be rolled up and transported in a vehicle in rolled-up state and be unrolled when use is required, whereafter it can be temporarily adhered with a number of very simple hand movements at any desired location to a ferromagnetic part of the surface of the vehicle. The laminate cannot be left behind after use since it forms a temporary unit with the vehicle. It can be placed on and removed from the vehicle very simply and without even the slightest damage.

The carrier layer serves to impart the required mechanical strength to the laminate, as shown in Fig. 2. A practical embodiment, generally designated 2, has the special feature that the first layer 10 incorporates the properties of the third layer 12 providing a combination layer 13. A prerequisite here is of course that the permanent magnetic third layer has a sufficiently great mechanical strength. This can be achieved in simple manner by making use of a flexible plastic or rubber-like material in which

magnetic means are embedded. Such magnetic means can take the form of permanent magnets or a ferromagnetic and pre-magnetized powder.

A variant has the special feature that the second layer is arranged locally in distributed zones.

Particularly in the case of warning systems a pattern of light-active zones 14 visually separated from each other can be advantageous.

In order to achieve a very great mechanical strength the laminate can have the special feature that the first layer comprises a textile fabric or non-woven material.

A practical embodiment has the special feature that the layers are mutually adhered by respective glue layers.

A specific embodiment of the laminate according to the invention has the special feature that the second layer is (photo-) luminescent. Such an embodiment can independently radiate light in dark conditions without this being a direct reaction to incident light. Such an embodiment generally has the drawback that the light intensity is relatively low.

Another embodiment has the special feature that the second layer is light-reflecting. Such an embodiment is for instance very suitable for applications related to that of known warning triangles.

A specific embodiment has the special feature that the second layer has at least one chosen color, for instance a warning color, a pattern of contrasting colors or the like. In the case of a warning triangle the color in question can for instance be red, optionally in combination with other colors such as blue, yellow or orange. The pattern of contrasting colors can for instance comprise the colors red and white.

To enable easy removal of the laminate according to the invention after use, it can advantageously have the special feature that the laminate comprises an edge or end zone 15 without permanent magnetization.

An advantageous embodiment has the special feature that the magnetization of the third layer has an anisotropic character. Such a laminate can be rolled up easily without the layers becoming attached to each other.

In the case of use as safety provision in cars, for instance as warning triangle, the laminate according to the invention can advantageously have the special feature

that at least one edge zone displays an aerodynamically acting form 16 tapering toward its free edge. This can effectively prevent passing cars from causing an air flow along the laminate arranged on the car such that it is pulled loose of the car.

A preferred embodiment has the special feature that the laminate is modeled to a desired shape, for instance an elongate strip, the general shape of a road sign, a warning triangle or the like. An elongate strip can be embodied in any desired color or combinations thereof and be arranged in any desired, for instance wholly random manner on a car stopped on a road. This provides a very strong warning function. A warning triangle can be formed by punching the relevant shape from a larger piece of laminate, while alternatively three wide strips can be mutually connected by glueing or in other suitable manner.

In order to prevent a laminate according to the invention being stolen by another person, it can advantageously have the special feature that the laminate has a form such that at least one end can be clampingly secured between a door or a window of a vehicle and is optionally with a widened part. The arrangement of a widened portion 17 on one end can have the advantage that the widened portion cannot pass through the connection between window, door on the one hand and the recess on the other. In order to prevent malicious persons being able to remove the laminate by cutting, it could optionally be provided with a strengthening wire, for instance a steel wire. Such a wire cannot be cut through easily.

The invention further provides a method of manufacturing a laminate in accordance with the above stated specifications. Such a method comprises the steps of:

a) providing the first layer, the second layer and the third layer, which first and third layers are optionally the same;

b) permanently connecting these layers to each other.

A specific embodiment of this method comprises the step of:

c) performing step (b) by stitching, welding, glueing with a pressure-sensitive glue, glueing with a thermally-activated glue or hot melt, or the like.

A very practical embodiment of this latter variant comprises the step of:

d) performing step (c) by using a thermally-activated glue layer and performing step (a) by providing a magnetizable and not, at least not substantially, magnetized layer, carrying the pre-laminate formed by the layers placed onto one another through a heating device so as to activate the glue layer, carrying the heated pre-laminate through the pinch of pressure rollers and magnetizing the magnetizable layer in the heated state of the pre-laminate.

According to another aspect of the invention a method is embodied such that it comprises the step of:

e) manufacturing the laminate by co-extruding at least two layers.

A significant advantage of the laminate according to the invention is that because of its flexibility it can adjust itself easily to the surface to which it is attached. The laminate is therefore given a relatively flat and flexible form. During production it is formed into the required shapes, for instance by punching, cutting or the like. Strips of the laminate can have standard lengths of for instance 0.1-2 m.

A laminate according to the invention can be supplied for diverse applications in just as many shapes and widths. The laminate is also very suitable to serve as marking for special parts of a crash-barrier, for instance to signpost bends, in which case different colors can be used which together indicate a direction.

Such a direction indicator can for instance be a pattern of successive zones with generally chevron shapes which indicate the direction of the bend and have for instance the alternating colors red-white-red-white and so on.

Diverse per se known products are suitable as permanent magnetic layer. These are for instance the magnetic foils of the company Bakker Magnetics B. V., Son, the Netherlands, which foils belong to the group with the type specifications BM200, BM700 and BM701.

CLAIMS

1. (Amended) Flexible laminate, comprising:

a first layer serving as carrier layer;

a light-active second layer situated on an outer surface of the laminate; and

a permanent magnetic third layer for releasable magnetic attachment of the laminate to a ferromagnetic surface;

characterized in that the light-active second layer acts without external energizing to change the properties of incident light such that the light reflected by this layer has signaling properties.

2. (Original) Laminate as claimed in claim 1, wherein the first layer is also the third layer.

3. (Original) Laminate as claimed in claim 1, wherein the second layer is arranged locally in distributed zones.

4. (Original) Laminate as claimed in claim 1, wherein the first layer comprises a textile fabric or non-woven material.

5. (Original) Laminate as claimed in claim 1, wherein the layers are mutually adhered by respective glue layers.

6. (Original) Laminate as claimed in claim 1, wherein the second layer is (photo-) luminescent.

7. (Original) Laminate as claimed in claim 1, wherein the second layer is optionally diffusely light-reflecting.

8. (Amended) Laminate as claimed in claim 1, wherein the second layer has at least one chosen color, for instance a warning color, a pattern of contrasting colors or the like.

9. (Original) Laminate as claimed in claim 1, wherein the laminate comprises an edge or end zone without permanent magnetization.

10. (Original) Laminate as claimed in claim 1, wherein the magnetization of the third layer has an anisotropic character.

11. (Original) Laminate as claimed in claim 1, wherein at least one edge zone displays an aerodynamically acting form tapering toward its free edge.

12. (Amended) Laminate as claimed in claim 1, wherein the laminate is modeled to a desired shape, for instance an elongate strip, the general shape of a road sign, a warning triangle or the like.

13. (Original) Laminate as claimed in claim 12, wherein the laminate has a form such that at least one end can be clampingly secured between a door or a window of a vehicle and is optionally provided with a widened portion.

14. (Amended) Method of manufacturing a laminate, which method comprises the steps of:

a) providing a first carrier layer, a second light-active layer and a third magnetic layer;

b) permanently connecting these layers to each other.

15. (Original) Method as claimed in claim 14, comprising the step of:

c) performing step (b) by stitching, welding, glueing with a pressure-sensitive glue, glueing with a thermally-activated glue or hot melt, or the like.

16. (Amended) Method as claimed in claim 15, comprising the step of:

d) performing step (c) by using a thermally-activated glue layer and performing step (a) by providing a magnetizable and not, at least not substantially, magnetized layer, carrying the pre-laminate formed by the layers placed onto one

another through a heating device so as to activate the glue layer, carrying the heated pre-laminate through the pinch of pressure rollers and magnetizing the magnetizable layer in the heated state of the pre-laminate.

17. (Original) Method as claimed in claim 14, comprising the step of:

e) manufacturing the laminate by co-extruding at least two layers.

18. (New) The method of claim 14, wherein the first and third layers are formed from a single layer having magnetic material incorporated therein.

ABSTRACT

A flexible laminate, comprising: the light-active second layer acts without external energizing to change the properties of incident light such that the light reflected by this layer has signaling properties; a first layer serving as carrier layer; a light-active second layer situated on an outer surface of this laminate; and a permanent magnetic third layer for releasable magnetic attachment of the laminate to a ferromagnetic surface. The laminate has the feature that the light-active second layer acts without external energizing to change the properties of incident light such that the light reflected by this layer has signaling properties.

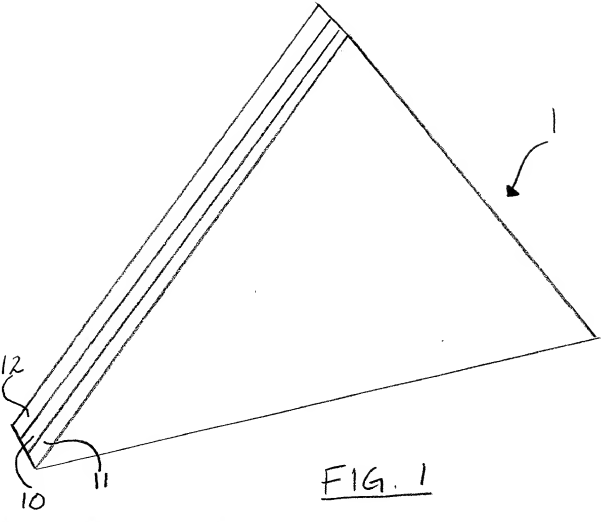

FIG. 1

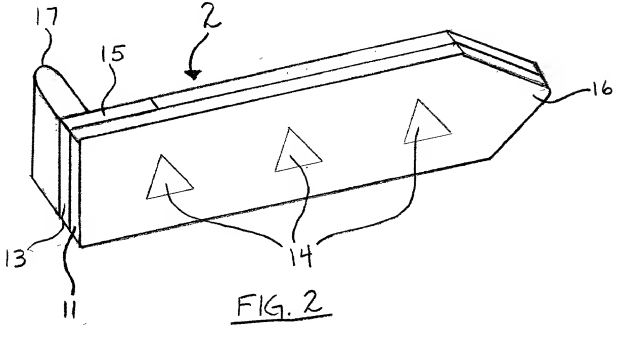

FIG. 2

FLEXIBLE LAMINATE AND METHOD OF MANUFACTURING SAME

In the case of for instance engine trouble in a car, traffic safety requires the placing of a so-called warning triangle at a distance behind this car. Such warning triangles are mechanical structures which are carried folded up in the car and which must be placed vertically on the road with a special collapsible foot. Such warning triangles are heavy and, with a view to practical handling, take a relatively small form, whereby their optical effect is limited, even in the case of substantial reflective properties.

Seen as a further drawback of known warning triangles is that once the engine trouble has been repaired the warning triangle is often left behind, so that a new one has to be purchased.

In addition, structures placed freely on a foot are subject to wind influences. It often occurs that a warning triangle cannot be placed stably due to strong wind.

The invention has the general object of providing solutions to the stated problems.

The invention further has the general object of providing products which can be used for the most diverse applications, and not only as warning triangles, and which are not subject to any of the said problems described above with reference to warning triangles.

In respect of the above the invention provides a flexible laminate, comprising:

a first layer serving as carrier layer;

a light-active second layer situated on an outer surface of this laminate; and

a permanent magnetic third layer for releasable magnetic attachment of the laminate to a ferromagnetic surface.

Such a laminate is known from US-A-5 005 306.

The optical properties of the light-active layer as according to this American patent specification have to be activated by external electrical energizing. This limits easy use of this laminate.

With this in mind, the laminate according to the invention has the feature that

the light-active second layer acts without external energizing to change the properties of incident light such that the light reflected by this layer has signalling properties.

Such a laminate according to the invention can easily be rolled up and transported in a vehicle in rolled-up state and be unrolled when use is required, whereafter it can be temporarily adhered with a number of very simple hand movements at any desired location to a ferromagnetic part of the surface of the vehicle. The laminate cannot be left behind after use since it forms a temporary unit with the vehicle. It can be placed on and removed from the vehicle very simply and without even the slightest damage.

The carrier layer serves to impart the required mechanical strength to the laminate. A practical embodiment has the special feature that the first layer is also the third layer. A prerequisite here is of course that the permanent magnetic third layer has a sufficiently great mechanical strength. This can be achieved in simple manner by making use of a flexible plastic or rubber-like material in which magnetic means are embedded. Such magnetic means can take the form of permanent magnets or a ferromagnetic and pre-magnetized powder.

A variant has the special feature that the second layer is arranged locally in distributed zones. Particularly in the case of warning systems a pattern of light-active zones visually separated from each other can be advantageous.

In order to achieve a very great mechanical strength the laminate can have the special feature that the first layer comprises a textile fabric or non-woven material.

A practical embodiment has the special feature that the layers are mutually adhered by respective glue layers.

A specific embodiment of the laminate according to the invention has the special feature that the second layer is (photo-)luminescent. Such an embodiment can independently radiate light in dark conditions without this being a direct reaction to incident light. Such an embodiment generally has the drawback that the light intensity is relatively low.

Another embodiment has the special feature that the second layer is light-reflecting. Such an embodiment is for instance very suitable for applications related to that of known warning triangles.

A specific embodiment has the special feature that the second layer has at least one chosen colour, for instance a warning colour, a pattern of contrasting colours or the like. In the case of a warning triangle the colour in question can for instance be red, optionally in combination with other colours such as blue, yellow or orange. The pattern of contrasting colours can for instance comprise the colours red and white.

To enable easy removal of the laminate according to the invention after use, it can advantageously have the special feature that the laminate comprises an edge or end zone without permanent magnetization.

An advantageous embodiment has the special feature that the magnetization of the third layer has an anisotropic character. Such a laminate can be rolled up easily without the layers becoming attached to each other.

In the case of use as safety provision in cars, for instance as warning triangle, the laminate according to the invention can advantageously have the special feature that at least one edge zone displays an aerodynamically acting form tapering toward its free edge. This can effectively prevent passing cars from causing an air flow along the laminate arranged on the car such that it is pulled loose of the car.

A preferred embodiment has the special feature that the laminate is modelled to a desired shape, for instance an elongate strip, the general shape of a road sign, a warning triangle or the like. An elongate strip can be embodied in any desired colour or combinations thereof and be arranged in any desired, for instance wholly random manner on a car stopped on a road. This provides a very strong warning function. A warning triangle can be formed by punching the relevant shape from a larger piece of laminate, while alternatively three wide strips can be mutually connected by glueing or in other suitable manner.

In order to prevent a laminate according to the invention being stolen by another person, it can advantageously have the special feature that the laminate has a form such that at least one end can be clampingly secured between a door or a window of a vehicle and is optionally provided with a widened part. The arrangement of a widened portion on one end can have the advantage that the widened portion cannot pass through the connection between window, door on the one hand and the recess on the other. In order to prevent malicious persons being able to remove the laminate by cutting, it could optionally be provided with a strengthening wire, for instance a steel wire. Such a wire cannot be cut through easily.

The invention further provides a method of manufacturing a laminate in accordance with the above

stated specifications. Such a method comprises the steps of:

a) providing the first layer, the second layer and the third layer, which first and third layers are optionally the same;

b) permanently connecting these layers to each other.

A specific embodiment of this method comprises the step of:

c) performing step (b) by stitching, welding, glueing with a pressure-sensitive glue, glueing with a thermally-activated glue or hot melt, or the like.

A very practical embodiment of this latter variant comprises the step of:

d) performing step (c) by using a thermally-activated glue layer and performing step (a) by providing a magnetizable and not, at least not substantially, magnetized layer, carrying the prelaminate formed by the layers placed onto one another through a heating device so as to activate the glue layer, carrying the heated prelaminate through the pinch of pressure rollers and magnetizing the magnetizable layer in the heated state of the prelaminate.

According to another aspect of the invention a method is embodied such that it comprises the step of:

e) manufacturing the laminate by co-extruding at least two layers.

A significant advantage of the laminate according to the invention is that because of its flexibility it can adjust itself easily to the surface to which it is attached. The laminate is therefore given a relatively flat and flexible form. During production it is formed into the required shapes, for instance by punching, cutting or the like. Strips of the laminate can have standard lengths of for instance 0.1-2 m.

A laminate according to the invention can be supplied for diverse applications in just as many shapes

and widths. The laminate is also very suitable to serve as marking for special parts of a crash-barrier, for instance to signpost bends, in which case different colours can be used which together indicate a direction. Such a direction indicator can for instance be a pattern of successive zones with generally chevron shapes which indicate the direction of the bend and have for instance the alternating colours red-white-red-white and so on.

Diverse per se known products are suitable as permanent magnetic layer. These are for instance the magnetic foils of the company Bakker Magnetics B.V., Son, the Netherlands, which foils belong to the group with the type specifications BM200, BM700 and BM701.

*****

CLAIMS

1. Flexible laminate, comprising:

a first layer serving as carrier layer;

a light-active second layer situated on an outer surface of this laminate; and

a permanent magnetic third layer for releasable magnetic attachment of the laminate to a ferromagnetic surface;

characterized in that

the light-active second layer acts without external energizing to change the properties of incident light such that the light reflected by this layer has signalling properties.

2. Laminate as claimed in claim 1, wherein the first layer is also the third layer.

3. Laminate as claimed in claim 1, wherein the second layer is arranged locally in distributed zones.

4. Laminate as claimed in claim 1, wherein the first layer comprises a textile fabric or non-woven material.

5. Laminate as claimed in claim 1, wherein the layers are mutually adhered by respective glue layers.

6. Laminate as claimed in claim 1, wherein the second layer is (photo-)luminescent.

7. Laminate as claimed in claim 1, wherein the second layer is optionally diffusely light-reflecting.

8. Laminate as claimed in claim 1, wherein the second layer has at least one chosen colour, for instance a warning colour, a pattern of contrasting colours or the like.

9. Laminate as claimed in claim 1, wherein the laminate comprises an edge or end zone without permanent magnetization.

10. Laminate as claimed in claim 1, wherein the magnetization of the third layer has an anisotropic character.

11. Laminate as claimed in claim 1, wherein at least one edge zone displays an aerodynamically acting form tapering toward its free edge.

12. Laminate as claimed in claim 1, wherein the laminate is modelled to a desired shape, for instance an elongate strip, the general shape of a road sign, a warning triangle or the like.

13. Laminate as claimed in claim 12, wherein the laminate has a form such that at least one end can be clampingly secured between a door or a window of a vehicle and is optionally provided with a widened portion.

14. Method of manufacturing a laminate as claimed in any of the claims 1-13, which method comprises the following steps of:

a) providing the first layer, the second layer and the third layer, which first and third layers are optionally the same;

b) permanently connecting these layers to each other.

15. Method as claimed in claim 14, comprising the step of:

c) performing step (b) by stitching, welding, glueing with a pressure-sensitive glue, glueing with a thermally-activated glue or hot melt, or the like.

16. Method as claimed in claim 15, comprising the step of:

d) performing step (c) by using a thermally-activated glue layer and performing step (a) by providing a magnetizable and not, at least not substantially, magnetized layer, carrying the prelaminate formed by the layers placed onto one another through a heating device so as to activate the glue layer, carrying the heated prelaminate through the pinch

of pressure rollers and magnetizing the magnetizable layer in the heated state of the prelaminate.

17. Method as claimed in claim 14, comprising the step of:

e) manufacturing the laminate by co-extruding at least two layers.

****

Banner & Witcoff Ref. No. 00771.00011
Client Ref. No. G PEM/NJ/Budev10

SOLE DECLARATION FOR PATENT APPLICATION

As the below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my names;

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled FLEXIBLE LAMINATE AND METHOD OF MANUFACTURING SAME, the specification of which

- ☐ is attached hereto.
- ☒ was filed on November 13, 2000 as Application Serial Number 09/700,184and was amended on November 13, 2000 (if applicable).
- ☒ was filed under the Patent Cooperation Treaty (PCT) and accorded International Application No. PCT/NL99/00266 , filed May 4, 1999 , and amended on (if any).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I hereby acknowledge the duty to disclose information which is material to patentability in accordance with Title 37, Code of Federal Regulations, 1.56(a).

Prior Foreign Application(s)

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application(s) for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Country	Application No.	Date of Filing (day month year)	Date of Issue (day month year)	Priority Claimed Under 35 U.S.C. §119
The Netherlands	1009129	11 May 1998		yes

Prior United States Provisional Application(s)

I hereby claim priority benefits under Title 35, United States Code, 119(e)(1) of any U.S. provisional application listed below:

U.S. Provisional Application No.	Date of Filing (day month year)	Priority Claimed Under 35 U.S.C. 119(e)(1)

Prior United States Application(s)

I hereby claim the benefit under Title 35, United States Code, 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application Serial No.	Date of Filing (Day, Month, Year)	Status ☐ Patented, Pending, Abandoned

Banner & Witcoff Ref. No. 00771.00011
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Power of Attorney

And I hereby appoint, both jointly and severally, as my attorneys with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith the following attorneys and agents, their registration numbers being listed after their names:

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FERGUSON, Catherine A.	40,877	MEDLOCK, Nina L.	29,673	WITCOFF, Sheldon W.	17,399
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FISHER, William J.	32,133	MEEKER, Frederic M.	35,282	WOLFFE, Susan A.	33,568
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature _____ Date 01-23-2001

Full Name of Inventor PAPING Max G.
Family Name First Given Name Second Given Name

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NCK